International Journal of Pharmacy and Technology, 2016, vol.8, N2, pages 14558-14566

Evaluation of disabled sportsman organism functional state as the element of rehabilitation measure system

Vakhitov B., Sitdikova I., Kashapov N., Vakhitov I.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2016, International Journal of Pharmacy and Technology. All rights reserved.The reaction of heart rate on a standard muscle strain and especially its recovery after the load completion is studied among disabled athletes. The analysis of heart rate was carried out in two stages. The heart rate indicators of disabled athletes at rest were examined during the first phase. During the second stage disabled athletes performed muscle strain in the form of shuttle acceleration for one minute along the basketball court perimeter, then the features of heart rate indicators were analyzed. It was found that during the annual cycle of muscle training the values of heart rate among wheelchair basketball players change "by leaps and bounds". The highest heart rate values registered during the preparatory period are replaced by their significant reduction during the competitive period. It was revealed that the heart rate response to the execution of muscular load and HR recovery time after muscular exercise depends on the level of fitness. The higher the level of fitness among wheelchair basketball players, the less the HR reaction and the shorter the recovery time of heart rate. The lowest heart rate response to the execution of muscular load and simultaneously a rapid recovery of heart rate after the exercise is observed during competitive period. Maximum heart rate response to the execution of muscular load and a longer recovery of heart rate is observed during the preparatory period.

Keywords

Disabled sportsmen, Heart response, Muscle exercises, Recovery process